

CARRIER TRACKING CIRCUIT AND METHOD INCLUDING DUAL NUMERICALLY  
CONTROLLED OSCILLATORS AND FEEDFORWARD PHASE CORRECTION  
COEFFICIENT

5                                   ABSTRACT OF THE DISCLOSURE

          A carrier tracking circuit includes a first phase adjustment circuit coupled to an input of a delay element and a second phase adjustment circuit coupled to an output of the delay element. A phase correction circuit is coupled to output of the delay element is operable to generate a phase adjustment value based upon a data symbol output from the delay element.

10   The phase correction circuit includes a double phase correction circuit to prevent double application of the same phase adjustment value to a symbol by both the first and second phase adjustment circuits. The carrier tracking circuit may be used in OFDM communications systems with each data symbol being an OFDM symbol and with the delay element being an FFT. The carrier tracker circuit also may include a feed forward circuit for correcting the

15   phase error of a given data symbol using a phase error generated from that symbol.